AF/JPW

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Appellants: Roberto CAPODIECI

Serial No.: 10/718,255

Filing Date: 20 November 2003

Title: APPARATUS AND METHOD FOR SHAPED CUTTING AND SLITTING OF FOOD PRODUCTS

Group No.: 3724

Examiner: Omar Flores Sanchez

APPEAL BRIEF

Mail Stop APPEAL BRIEF-PATENTS
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

Dear Sir:

Appellant herewith files this Appeal Brief in the above-identified case under 37 CFR § 41.37, pursuant to the Notice of Appeal filed 05 February 2007.

I hereby certify that this correspondence (along with any paper referred to as being attached or enclosed) is being deposited with the United States Postal Service as First Class Mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on

05 APRIL 2007

05 APRIL 2007
Date

KIDEK
Signature

04/10/2007 HDESTA1 00000076 10718255
01 FC:2402 250.00 OP

I. REAL PARTY IN INTEREST

The real party in interest is Creative Resonance Inc, the assignee of the entire interest of the present application (as recorded at reel 015137, frame 0138).

II. RELATED APPEALS AND INTERFERENCES

There are no related appeals or interferences with regard to the present application.

III. STATUS OF CLAIMS

Claims 1-14 and 16-27 are pending in the application. Claims 1-14 and 16-21 are rejected in the final Office Action mailed 03 November 2006. Claim 15 is canceled and Claims 22-27 are withdrawn from consideration. The present Appeal is directed to Claims 1-14 and 16-21, as presented in Appendix A.

IV. STATUS OF AMENDMENTS

Appellant filed an Amendment After Final Rejection on 03 January 2007 to adopt Examiner's suggestions and place the claims in condition for allowance by amending the independent claims to recite the limitation of leading edges forming cutting surfaces or blades where the first cutting blades and the second cutting blades cut through the food product and form individual food product pieces. A change in Examinership occurred and an Advisory Action was mailed on 24 January 2007 which denied entry of the Amendment After Final Rejection as requiring a new search.

V. SUMMARY OF CLAIMED SUBJECT MATTER

This present invention, as defined by independent Claim 1 includes an apparatus 15 for cutting food product (FIG. 7A-7K and 8A-8K) comprising (Page 7, lines 8-12; FIG. 1A): an ultrasonic resonant horn 20 (Page 7, lines 12-15; FIGS. 1A

and 4-6); and a reciprocating cutting tool 30 mounted with respect to the ultrasonic resonant horn 20, the cutting tool 30 comprising a plurality of longitudinally oriented first cutting blades 35 and a plurality of transversely oriented second cutting blades 40, each second cutting blade 40 of the plurality of second cutting blades 40 positioned between and connected with adjacent first cutting blades 35, the first cutting blades 35 and the second cutting blades 40 having sharpened and generally aligned cutting surfaces 37, 38 (Page 9, lines 7-10; page 11, 10-13, FIGS. 1A-B).

This present invention, as defined by independent Claim 17 includes an apparatus 15 for forming a plurality of food product cubes (FIG. 7A-7K and 8A-8K) from a food product base comprising (Page 7, lines 8-12; FIG. 1A): an ultrasonic resonant horn 20 (Page 7, lines 12-15; FIGS. 1A and 4); and a reciprocating cutting tool 30 mounted with respect to the ultrasonic resonant horn 20, the cutting tool 30 comprising at least two composite blade elements 70, 80, a first composite blade element 70 of the at least two composite blade elements 70, 80 comprising at least two longitudinally oriented first cutting blades 35 and at least one transversely oriented second cutting blade 40, each second cutting blade 40 of the at least one second cutting blade 40 positioned between and connected to adjacent first cutting blades 35, and a second composite blade element 80 of the at least two composite blade elements 70, 80 having an open end 82 and comprising at least one longitudinally oriented first cutting blade 35 and at least one transversely oriented second cutting blade 40, wherein the second composite blade element 80 open end 82 is adjacent a closed end 74 of the first composite blade element 70, and wherein the first composite blade element 70 and the second composite blade element 80 include generally aligned cutting blades 32 (Page 12, line 12 to page 13, line 13; Page 16, lines 3-5; FIG. 3).

This present invention, as defined by independent Claim 21 includes an apparatus 15 for cutting food product (FIG. 7A-7K and 8A-8K) comprising (Page 7, lines 8-12; FIG. 1A): an ultrasonic resonant horn 20 (FIGS. 1A and 4); and a reciprocating cutting tool 30 mounted with respect to the ultrasonic resonant horn 20,

the cutting tool comprising a plurality of longitudinally oriented first cutting blades 35 and a transversely oriented second cutting blade 40, each first cutting blade 35 of the plurality of first cutting blades 35 positioned along a length of the second cutting blade 40 and connected with respect to the second cutting blade 40, wherein cutting surfaces 38 of the first cutting blade 35 and the second cutting blade 40 are aligned (Page 11, line 10 to page 12, line 12; FIGS. 1B and 2).

VI. ISSUE TO BE REVIEWED ON APPEAL

The issue to be reviewed on appeal is the rejection of Claims 1-10, 12-14 and 16-21 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent 6,143,336 ("Capodieci '336"), and the rejection of Claim 11 under 35 U.S.C. § 103(a) as being obvious over Capodieci '336. These rejections were made final in the 03 November 2006 Office Action.

VII. ARGUMENTS

The rejection of Claims 1-10, 12-14 and 16-21 under 35 U.S.C. § 102(b) as being anticipated by Capodieci '336 is respectfully traversed. The standard for anticipation is that each and every element of the claims is taught by the cited reference (*see*, MPEP § 2131).

Capodieci '336 does not teach the claimed invention as the embodiments disclosed, particularly in accordance with Figs. 5 and 7. Furthermore, Capodieci '336 does not teach two separate and aligned cutting surfaces as required in Applicant's claimed invention (*See*, independent Claims 1, 17 and 21). Instead, Capodieci '336 teaches partitions or dividing walls *within a single cavity* that form food products into unitary but segmented products as shown by element 125 of Fig. 5 and element 425 of Fig. 7. Capodieci '336 forms a web in the food product rather than individual product pieces. The leading edges of these partitions are not sharpened and are recessed relative to the cutting surfaces formed around the perimeter of the cavity.

Put another way, if Capodieci '336 had partitions that extended through the product with sharpened edges, it would not produce a segmented product but individual product pieces.

In addition, Capodieci '336 does not teach an "open end" as required in Applicant's claimed invention, rather each cutting blade of the horn taught by Capodieci '336 forms a fully enclosed "cavity." Put another way, if Capodieci '336 had an open end it could not perform the intended agglomeration of cereal grains since the cereal grains would flow out the open end and not form the bar. Applicant's invention is for cutting food product which does not require a closed cavity perimeter to perform its intended purpose. For all the above reasons, Applicant's Claims 1-10, 12-14 and 16-21 are patentably distinguished from Capodieci '336.

The rejection of Claim 11 under 35 U.S.C. § 103(a) as being obvious over Capodieci '336 is respectfully traversed. Claim 11 depends from Claim 1 and is patentable for the at least the same reasons discussed above. The *prima facie* requirements for a case of obviousness are three fold: 1) a motivation to combine, 2) an expectation of success, 3) a disclosure of all limitations (*see*, MPEP § 2143).

In this case, Claim 11 requires a polished carbide coating on the cutting blades. Capodieci '336 is silent with respect to carbide and coating so the cited reference does not disclose all the limitations. Capodieci '336 does not teach or suggest the use of carbide coatings on cutting blades. One skilled in the are art would not have a motivation to combine or an expectation of success to modify Capodieci '336 to arrive at Applicant's Claim 11. The Examiner has failed to cite references that meet any of the three requirements for a *prima facie* case of obviousness.

VIII. CONCLUSION

For the above reasons, Appellants respectfully submit that the rejections posed by the Examiner are improper as a matter of law and fact. Accordingly, Appellants respectfully request the Board to reverse the rejections of Claims 1-14 and 16-21.

A check for the fee required by 37 CFR § 41.37(a)(2) and 37 CFR § 41.20(b)(2), updated pursuant to the Fiscal Year 2007 Fee Schedule, in the amount of $250.00 for small entity status, is attached hereto. Please charge any additional amount owed or credit any overpayment, to Deposit Account 19-3550.

Respectfully submitted,

Kevin D. Erickson
Registration No. 38,736

Pauley Petersen & Erickson
2800 West Higgins Road; Suite 365
Hoffman Estates, Illinois 60169
TEL (847) 490-1400
FAX (847) 490-1403

APPENDIX A – CLAIMS APPENDIX

1. (Rejected) An apparatus for cutting food product comprising:

an ultrasonic resonant horn; and

a reciprocating cutting tool mounted with respect to the ultrasonic resonant horn, the cutting tool comprising a plurality of longitudinally oriented first cutting blades and a plurality of transversely oriented second cutting blades, each second cutting blade of the plurality of second cutting blades positioned between and connected with adjacent first cutting blades, the first cutting blades and the second cutting blades having sharpened and generally aligned cutting surfaces.

2. (Rejected) The apparatus of Claim 1 wherein each second cutting blade is connected to a first end portion of each first cutting blade of the adjacent first cutting blades.

3. (Rejected) The apparatus of Claim 1 wherein the cutting tool comprises an alternating pattern of first cutting blades and second cutting blades.

4. (Rejected) The apparatus of Claim 1 wherein the plurality of first cutting blades and the plurality of second cutting blades form a continuous cutting pattern.

5. (Rejected) The apparatus of Claim 1 wherein each cutting blade has a cutting depth of about 1 mm to about 100 mm.

6. (Rejected) The apparatus of Claim 1 wherein adjacent first cutting blades are positioned at about 3 mm apart to about 100 mm apart.

7. (Rejected) The apparatus of Claim 1 wherein each of the plurality of first cutting blades comprises converging blade surfaces, each blade surface oriented at an angle of about 2° to about 10° with respect to a vertical plane of the first cutting blade.

8. (Rejected) The apparatus of Claim 1 wherein each of the plurality of second cutting blades comprises converging blade surfaces, each blade surface oriented at an angle of about 2° to about 10° with respect to a vertical plane of the second cutting blade.

9. (Rejected) The apparatus of Claim 1 wherein the cutting tool comprises at least two transversely oriented composite blade elements, at least one of the composite blade elements having an open first end.

10. (Rejected) The apparatus of Claim 9 wherein the open first end of the at least one composite blade element abuts a closed end of an adjacent composite blade element.

11. (Rejected) The apparatus of Claim 1 wherein at least a portion of each first cutting blade and at least a portion of each second cutting blade comprises a polished carbide coating.

12. (Rejected) The apparatus of Claim 1 wherein the plurality of food product cubes are substantially identical.

13. (Rejected) The apparatus of Claim 1 wherein the ultrasonic resonant horn has a frequency of at least about 10 KHz.

14. (Rejected) The apparatus of Claim 1 wherein the ultrasonic resonant horn has a frequency range of about 10 KHz to about 40 KHz.

15. (Canceled)

16. (Rejected) The apparatus of Claim 1 wherein at least one of the plurality of longitudinally oriented first cutting blades and the plurality of transversely oriented second cutting blades includes a profiled cutting edge.

17. (Rejected) An apparatus for forming a plurality of food product cubes from a food product base comprising:

an ultrasonic resonant horn; and

a reciprocating cutting tool mounted with respect to the ultrasonic resonant horn, the cutting tool comprising at least two composite blade elements, a first composite blade element of the at least two composite blade elements comprising at least two longitudinally oriented first cutting blades and at least one transversely oriented second cutting blade, each second cutting blade of the at least one second cutting blade positioned between and connected to adjacent first cutting blades, and a second composite blade element of the at least two composite blade elements having an open end and comprising at least one longitudinally oriented first cutting blade and at least one transversely oriented second cutting blade, wherein the second composite blade element open end is adjacent a closed end of the first composite blade element, and wherein the first composite blade element and the second composite blade element include generally aligned cutting blades.

18. (Rejected) The apparatus of Claim 17 wherein the at least two composite blade elements are transversely oriented with respect to the food product base.

19. (Rejected) The apparatus of Claim 17 wherein the at least two composite blade elements form a cutting pattern.

20. (Rejected) The apparatus of Claim 19 wherein the cutting pattern is continuous.

21. (Rejected) An apparatus for cutting food product comprising:

an ultrasonic resonant horn; and

a reciprocating cutting tool mounted with respect to the ultrasonic resonant horn, the cutting tool comprising a plurality of longitudinally oriented first cutting blades and a transversely oriented second cutting blade, each first cutting blade of the plurality of first cutting blades positioned along a length of the second cutting blade and connected with respect to the second cutting blade, wherein cutting surfaces of the first cutting blade and the second cutting blade are aligned.

22. (Withdrawn) A method for forming a plurality of food product cubes from a food product base comprising:

forming a food product slab from the food product base;

conveying the food product slab through an apparatus comprising an ultrasonic resonant horn and a reciprocating cutting tool mounted with respect to the ultrasonic resonant horn, the cutting tool comprising a plurality of longitudinally oriented first cutting blades and a plurality of transversely oriented second cutting blades, each second cutting blade of the plurality of second cutting blades positioned between and connected with adjacent first cutting blades;

forming a continuous first cutting pattern in the food product slab;

advancing the food product slab with respect to the cutting tool;

reciprocating the cutting tool; and

forming a continuous second cutting pattern in the food product slab with respect to the first cutting pattern to form the plurality of food product cubes.

23. (Withdrawn) The method of Claim 22 wherein the first cutting pattern is transversely oriented with respect to the food product slab.

24. (Withdrawn) The method of Claim 22 wherein the second cutting pattern is transversely oriented with respect to the food product slab.

25. (Withdrawn) The method of Claim 22 wherein the continuous first cutting pattern is formed by simultaneously forming a plurality of longitudinally oriented slits in the food product slab and forming a plurality of transversely oriented cuts in the food product slab between adjacent slits.

26. (Withdrawn) The method of Claim 22 wherein the first cutting pattern and at least a portion of the second cutting pattern form a row of food product cubes.

27. (Withdrawn) The method of Claim 22 wherein an upstream portion of the second cutting pattern contacts a downstream portion of the first cutting pattern to form a row of food product cubes.

APPENDIX B – EVIDENCE APPENDIX

No evidence is submitted pursuant to 37 C.F.R. §§ 1.130, 1.131 or 1.132. Copies of the following evidence and prior art relied upon by the Examiner is attached.

Exhibit A: U.S. Patent 6,143,336 ("Capodieci '336"), entered in an Office Action dated 07 April 2006.

EXHIBIT A

U.S. Patent 6,143,336 ("Capodieci '336"), 11 pages.

APPENDIX C – RELATED PROCEEDINGS APPENDIX

None.

APPENDIX C – RELATED PROCEEDINGS APPENDIX

None.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Appellants: Roberto CAPODIECI

Serial No.: 10/718,255

Filing Date: 20 November 2003

Title: APPARATUS AND METHOD FOR SHAPED CUTTING AND SLITTING OF FOOD PRODUCTS

Group No.: 3724

Examiner: Omar Flores Sanchez

APPEAL BRIEF

Mail Stop APPEAL BRIEF-PATENTS
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

Dear Sir:

Appellant herewith files this Appeal Brief in the above-identified case under 37 CFR § 41.37, pursuant to the Notice of Appeal filed 05 February 2007.

I hereby certify that this correspondence (along with any paper referred to as being attached or enclosed) is being deposited with the United States Postal Service as First Class Mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on

05 APRIL 2007

05 APRIL 2007
Date

KIDEK
Signature

I. REAL PARTY IN INTEREST

The real party in interest is Creative Resonance Inc, the assignee of the entire interest of the present application (as recorded at reel 015137, frame 0138).

II. RELATED APPEALS AND INTERFERENCES

There are no related appeals or interferences with regard to the present application.

III. STATUS OF CLAIMS

Claims 1-14 and 16-27 are pending in the application. Claims 1-14 and 16-21 are rejected in the final Office Action mailed 03 November 2006. Claim 15 is canceled and Claims 22-27 are withdrawn from consideration. The present Appeal is directed to Claims 1-14 and 16-21, as presented in Appendix A.

IV. STATUS OF AMENDMENTS

Appellant filed an Amendment After Final Rejection on 03 January 2007 to adopt Examiner's suggestions and place the claims in condition for allowance by amending the independent claims to recite the limitation of leading edges forming cutting surfaces or blades where the first cutting blades and the second cutting blades cut through the food product and form individual food product pieces. A change in Examinership occurred and an Advisory Action was mailed on 24 January 2007 which denied entry of the Amendment After Final Rejection as requiring a new search.

V. SUMMARY OF CLAIMED SUBJECT MATTER

This present invention, as defined by independent Claim 1 includes an apparatus 15 for cutting food product (FIG. 7A-7K and 8A-8K) comprising (Page 7, lines 8-12; FIG. 1A): an ultrasonic resonant horn 20 (Page 7, lines 12-15; FIGS. 1A

and 4-6); and a reciprocating cutting tool 30 mounted with respect to the ultrasonic resonant horn 20, the cutting tool 30 comprising a plurality of longitudinally oriented first cutting blades 35 and a plurality of transversely oriented second cutting blades 40, each second cutting blade 40 of the plurality of second cutting blades 40 positioned between and connected with adjacent first cutting blades 35, the first cutting blades 35 and the second cutting blades 40 having sharpened and generally aligned cutting surfaces 37, 38 (Page 9, lines 7-10; page 11, 10-13, FIGS. 1A-B).

This present invention, as defined by independent Claim 17 includes an apparatus 15 for forming a plurality of food product cubes (FIG. 7A-7K and 8A-8K) from a food product base comprising (Page 7, lines 8-12; FIG. 1A): an ultrasonic resonant horn 20 (Page 7, lines 12-15; FIGS. 1A and 4); and a reciprocating cutting tool 30 mounted with respect to the ultrasonic resonant horn 20, the cutting tool 30 comprising at least two composite blade elements 70, 80, a first composite blade element 70 of the at least two composite blade elements 70, 80 comprising at least two longitudinally oriented first cutting blades 35 and at least one transversely oriented second cutting blade 40, each second cutting blade 40 of the at least one second cutting blade 40 positioned between and connected to adjacent first cutting blades 35, and a second composite blade element 80 of the at least two composite blade elements 70, 80 having an open end 82 and comprising at least one longitudinally oriented first cutting blade 35 and at least one transversely oriented second cutting blade 40, wherein the second composite blade element 80 open end 82 is adjacent a closed end 74 of the first composite blade element 70, and wherein the first composite blade element 70 and the second composite blade element 80 include generally aligned cutting blades 32 (Page 12, line 12 to page 13, line 13; Page 16, lines 3-5; FIG. 3).

This present invention, as defined by independent Claim 21 includes an apparatus 15 for cutting food product (FIG. 7A-7K and 8A-8K) comprising (Page 7, lines 8-12; FIG. 1A): an ultrasonic resonant horn 20 (FIGS. 1A and 4); and a reciprocating cutting tool 30 mounted with respect to the ultrasonic resonant horn 20,

the cutting tool comprising a plurality of longitudinally oriented first cutting blades 35 and a transversely oriented second cutting blade 40, each first cutting blade 35 of the plurality of first cutting blades 35 positioned along a length of the second cutting blade 40 and connected with respect to the second cutting blade 40, wherein cutting surfaces 38 of the first cutting blade 35 and the second cutting blade 40 are aligned (Page 11, line 10 to page 12, line 12; FIGS. 1B and 2).

VI. ISSUE TO BE REVIEWED ON APPEAL

The issue to be reviewed on appeal is the rejection of Claims 1-10, 12-14 and 16-21 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent 6,143,336 ("Capodieci '336"), and the rejection of Claim 11 under 35 U.S.C. § 103(a) as being obvious over Capodieci '336. These rejections were made final in the 03 November 2006 Office Action.

VII. ARGUMENTS

The rejection of Claims 1-10, 12-14 and 16-21 under 35 U.S.C. § 102(b) as being anticipated by Capodieci '336 is respectfully traversed. The standard for anticipation is that each and every element of the claims is taught by the cited reference (*see*, MPEP § 2131).

Capodieci '336 does not teach the claimed invention as the embodiments disclosed, particularly in accordance with Figs. 5 and 7. Furthermore, Capodieci '336 does not teach two separate and aligned cutting surfaces as required in Applicant's claimed invention (*See*, independent Claims 1, 17 and 21). Instead, Capodieci '336 teaches partitions or dividing walls *within a single cavity* that form food products into unitary but segmented products as shown by element 125 of Fig. 5 and element 425 of Fig. 7. Capodieci '336 forms a web in the food product rather than individual product pieces. The leading edges of these partitions are not sharpened and are recessed relative to the cutting surfaces formed around the perimeter of the cavity.

Put another way, if Capodieci '336 had partitions that extended through the product with sharpened edges, it would not produce a segmented product but individual product pieces.

In addition, Capodieci '336 does not teach an "open end" as required in Applicant's claimed invention, rather each cutting blade of the horn taught by Capodieci '336 forms a fully enclosed "cavity." Put another way, if Capodieci '336 had an open end it could not perform the intended agglomeration of cereal grains since the cereal grains would flow out the open end and not form the bar. Applicant's invention is for cutting food product which does not require a closed cavity perimeter to perform its intended purpose. For all the above reasons, Applicant's Claims 1-10, 12-14 and 16-21 are patentably distinguished from Capodieci '336.

The rejection of Claim 11 under 35 U.S.C. § 103(a) as being obvious over Capodieci '336 is respectfully traversed. Claim 11 depends from Claim 1 and is patentable for the at least the same reasons discussed above. The *prima facie* requirements for a case of obviousness are three fold: 1) a motivation to combine, 2) an expectation of success, 3) a disclosure of all limitations (*see*, MPEP § 2143).

In this case, Claim 11 requires a polished carbide coating on the cutting blades. Capodieci '336 is silent with respect to carbide and coating so the cited reference does not disclose all the limitations. Capodieci '336 does not teach or suggest the use of carbide coatings on cutting blades. One skilled in the are art would not have a motivation to combine or an expectation of success to modify Capodieci '336 to arrive at Applicant's Claim 11. The Examiner has failed to cite references that meet any of the three requirements for a *prima facie* case of obviousness.

VIII. CONCLUSION

For the above reasons, Appellants respectfully submit that the rejections posed by the Examiner are improper as a matter of law and fact. Accordingly, Appellants respectfully request the Board to reverse the rejections of Claims 1-14 and 16-21.

A check for the fee required by 37 CFR § 41.37(a)(2) and 37 CFR § 41.20(b)(2), updated pursuant to the Fiscal Year 2007 Fee Schedule, in the amount of $250.00 for small entity status, is attached hereto. Please charge any additional amount owed or credit any overpayment, to Deposit Account 19-3550.

Respectfully submitted,

Kevin D. Erickson
Registration No. 38,736

Pauley Petersen & Erickson
2800 West Higgins Road; Suite 365
Hoffman Estates, Illinois 60169
TEL (847) 490-1400
FAX (847) 490-1403

APPENDIX A – CLAIMS APPENDIX

1. (Rejected) An apparatus for cutting food product comprising:

an ultrasonic resonant horn; and

a reciprocating cutting tool mounted with respect to the ultrasonic resonant horn, the cutting tool comprising a plurality of longitudinally oriented first cutting blades and a plurality of transversely oriented second cutting blades, each second cutting blade of the plurality of second cutting blades positioned between and connected with adjacent first cutting blades, the first cutting blades and the second cutting blades having sharpened and generally aligned cutting surfaces.

2. (Rejected) The apparatus of Claim 1 wherein each second cutting blade is connected to a first end portion of each first cutting blade of the adjacent first cutting blades.

3. (Rejected) The apparatus of Claim 1 wherein the cutting tool comprises an alternating pattern of first cutting blades and second cutting blades.

4. (Rejected) The apparatus of Claim 1 wherein the plurality of first cutting blades and the plurality of second cutting blades form a continuous cutting pattern.

5. (Rejected) The apparatus of Claim 1 wherein each cutting blade has a cutting depth of about 1 mm to about 100 mm.

6. (Rejected) The apparatus of Claim 1 wherein adjacent first cutting blades are positioned at about 3 mm apart to about 100 mm apart.

7. (Rejected) The apparatus of Claim 1 wherein each of the plurality of first cutting blades comprises converging blade surfaces, each blade surface oriented at an angle of about 2° to about 10° with respect to a vertical plane of the first cutting blade.

8. (Rejected) The apparatus of Claim 1 wherein each of the plurality of second cutting blades comprises converging blade surfaces, each blade surface oriented at an angle of about 2° to about 10° with respect to a vertical plane of the second cutting blade.

9. (Rejected) The apparatus of Claim 1 wherein the cutting tool comprises at least two transversely oriented composite blade elements, at least one of the composite blade elements having an open first end.

10. (Rejected) The apparatus of Claim 9 wherein the open first end of the at least one composite blade element abuts a closed end of an adjacent composite blade element.

11. (Rejected) The apparatus of Claim 1 wherein at least a portion of each first cutting blade and at least a portion of each second cutting blade comprises a polished carbide coating.

12. (Rejected) The apparatus of Claim 1 wherein the plurality of food product cubes are substantially identical.

13. (Rejected) The apparatus of Claim 1 wherein the ultrasonic resonant horn has a frequency of at least about 10 KHz.

14. (Rejected) The apparatus of Claim 1 wherein the ultrasonic resonant horn has a frequency range of about 10 KHz to about 40 KHz.

15. (Canceled)

16. (Rejected) The apparatus of Claim 1 wherein at least one of the plurality of longitudinally oriented first cutting blades and the plurality of transversely oriented second cutting blades includes a profiled cutting edge.

17. (Rejected) An apparatus for forming a plurality of food product cubes from a food product base comprising:

an ultrasonic resonant horn; and

a reciprocating cutting tool mounted with respect to the ultrasonic resonant horn, the cutting tool comprising at least two composite blade elements, a first composite blade element of the at least two composite blade elements comprising at least two longitudinally oriented first cutting blades and at least one transversely oriented second cutting blade, each second cutting blade of the at least one second cutting blade positioned between and connected to adjacent first cutting blades, and a second composite blade element of the at least two composite blade elements having an open end and comprising at least one longitudinally oriented first cutting blade and at least one transversely oriented second cutting blade, wherein the second composite blade element open end is adjacent a closed end of the first composite blade element, and wherein the first composite blade element and the second composite blade element include generally aligned cutting blades.

18. (Rejected) The apparatus of Claim 17 wherein the at least two composite blade elements are transversely oriented with respect to the food product base.

19. (Rejected) The apparatus of Claim 17 wherein the at least two composite blade elements form a cutting pattern.

20. (Rejected) The apparatus of Claim 19 wherein the cutting pattern is continuous.

21. (Rejected) An apparatus for cutting food product comprising:

an ultrasonic resonant horn; and

a reciprocating cutting tool mounted with respect to the ultrasonic resonant horn, the cutting tool comprising a plurality of longitudinally oriented first cutting blades and a transversely oriented second cutting blade, each first cutting blade of the plurality of first cutting blades positioned along a length of the second cutting blade and connected with respect to the second cutting blade, wherein cutting surfaces of the first cutting blade and the second cutting blade are aligned.

22. (Withdrawn) A method for forming a plurality of food product cubes from a food product base comprising:

forming a food product slab from the food product base;

conveying the food product slab through an apparatus comprising an ultrasonic resonant horn and a reciprocating cutting tool mounted with respect to the ultrasonic resonant horn, the cutting tool comprising a plurality of longitudinally oriented first cutting blades and a plurality of transversely oriented second cutting blades, each second cutting blade of the plurality of second cutting blades positioned between and connected with adjacent first cutting blades;

forming a continuous first cutting pattern in the food product slab;

advancing the food product slab with respect to the cutting tool;

reciprocating the cutting tool; and

forming a continuous second cutting pattern in the food product slab with respect to the first cutting pattern to form the plurality of food product cubes.

23. (Withdrawn) The method of Claim 22 wherein the first cutting pattern is transversely oriented with respect to the food product slab.

24. (Withdrawn) The method of Claim 22 wherein the second cutting pattern is transversely oriented with respect to the food product slab.

25. (Withdrawn) The method of Claim 22 wherein the continuous first cutting pattern is formed by simultaneously forming a plurality of longitudinally oriented slits in the food product slab and forming a plurality of transversely oriented cuts in the food product slab between adjacent slits.

26. (Withdrawn) The method of Claim 22 wherein the first cutting pattern and at least a portion of the second cutting pattern form a row of food product cubes.

27. (Withdrawn) The method of Claim 22 wherein an upstream portion of the second cutting pattern contacts a downstream portion of the first cutting pattern to form a row of food product cubes.

APPENDIX B – EVIDENCE APPENDIX

No evidence is submitted pursuant to 37 C.F.R. §§ 1.130, 1.131 or 1.132. Copies of the following evidence and prior art relied upon by the Examiner is attached.

Exhibit A: U.S. Patent 6,143,336 ("Capodieci '336"), entered in an Office Action dated 07 April 2006.

EXHIBIT A

U.S. Patent 6,143,336 ("Capodieci '336"), 11 pages.